FROESCHNEROCADER DENTICOLLIS (HETEROPTERA: TINGIDAE): A NEW GENUS AND SPECIES OF CANTACADERINAE FROM BORNEO

JEAN PÉRICART 10, rue Habert, F–77130 Montereau, France

Abstract. - Froeschnerocader denticollis, new genus and new species, is described from Borneo, Eastern Malaysia.

The following description is furnished to provide a name to be included in a forthcoming list of Tingidae collected in 1983 on Borneo and Palawan Islands by Dr. Bernd Hauser, Musée d'Histoire Naturelle de Genève. The primitive subfamily Cantacaderinae, apart from some *Cantacader* spp., is represented in this material by a unique but very distinct specimen, representing a new genus and species. I am very pleased to name the genus in honor of Dr. Richard C. Froeschner, as an acknowledgement of his valuable contributions to the study of this subfamily on a worldwide level and a personal appreciation and mark of friendship.

Froeschnerocader, new genus

Diagnosis. This genus, belonging to the tribe Cantacaderini (see Drake, 1960; Froeschner, 1968), differs from all other known genera of the tribe (Cantacader Amyot and Serville, Ceratocader Drake, Nectocader Drake, and Teratocader Drake) in having the bucculae hardly surpassing the tip of clypeus. Furthermore, the absence of hemelytral shoulders and the presence of toothlike projections on the paranota distinguish it from Nectocader and Teratocader. Its pronotal structure resembles that of Ceratocader, but in the latter, the scutellum is not covered; Ceratocader also has more than one transverse vein on the discoidal area.

Description. Very minutely reticulate above. Head armed dorsally with two pairs of spiniform processes. Bucculae hardly surpassing tip of clypeus, not closing buccal sulcus. Antennae slender.

Pronotum roughly semicircular posteriorly, covering the scutellum but not the hemelytral clavus. Paranota slightly raised, with several toothlike projections. Hood triangular, its tip protruding above the front. Disc bearing 5 carinae, median carina continuing on hood, two mediolateral carinae crossing entire disc, two external ones abbreviated.

Hemelytra without shoulders. Stenocostal areas complete, uniseriate. Costal laminae very broad, vein (R + M) very prominent. Discoidal areas crossed transversely on posterior by a secondary vein. Legs relatively stout, all femora bearing an external spur apically above their apex. Rostral furrow open behind. Metathoracic scent grooves clearly visible.

Type species. Froeschnerocader denticollis, new species.

Froeschnerocader denticollis, new species Figs. 1–6

Description. Based upon a unique macropterous male. Habitus, Figure 1; lateral view of anterior half, Figure 4; ventral side, Figure 5. Body subglabrous. Dorsum brownish yellow, mottled with whitish areas; pronotal disc and head whitish; antennae pale brownish yellow, except apical half of 4th segment black; legs pale brownish yellow; tips of tarsi darkened.

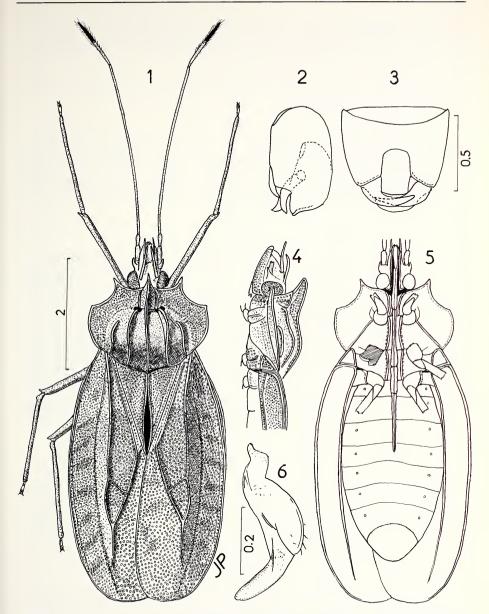
Head relatively short. Eyes (as seen from above) large, convex, with internal edges strongly diverging, 1.1 times broader than front at narrowest point between them. Posterior pair of spiniform processes near middle of internal edge of eyes, anterior pair near anterior edge of front, both pairs of processes thin, slightly arched, pointing anteriorly, as long as antennal segments I + II. Antenniferous tubercles acute, small, arched inward. First antennal segment hardly as long as eyes, almost cylindrical, attenuated at base; 2nd segment a little shorter, attenuated at both ends; 3rd segment slender, cylindrical, almost 4 times longer than width across eyes, and more than 4 times longer than spindle-like 4th segment. Bucculae (Fig. 4) narrowing from base to apex, hardly surpassing clypeus. Rostrum reaching posterior edge of sternite V (apparent IV).

Pronotum 1.25 times broader than long. Paranota horizontal, not clearly separated from disc, bearing 6–8 rows of small areolae; sides broadly arched on posterior half, forming two angular projections on anterior half, the most anterior spinelike at apex. Hood forming an elongate triangle, its tip protruding above the front; hood bounded laterally by two small carinae almost continuing the mediolateral carinae on disc. Disc convex, densely and finely punctate. Median carina narrow, bearing only one row of small areolae on disc, then broadening to 5–7 rows at base of the hood and continuing with several rows on the hood. Mediolateral carinae bisinuate on posterior half of disc, shortly curved inside before ending at transverse sulcus limiting base of the hood. External carinae bisinuate, converging anteriorly, ending onto anterior third of disc.

Hemelytra 1.6 times longer than broad; anterior angles absent; sides slightly arched, with maximum breadth near middle. Clavus forming elongate triangles, with 8 rows of areolae at broadest point. Stenocostal areas uniseriate, slightly reflexed above in anterior part. Costal laminae broad, raised (mainly anteriorly), bearing slight, irregular, transverse swellings; 9 rows of areolae at broadest point. Subcostal areas concave, with 5 rows of areolae, overhung by very prominent (R + M) vein. Discoidal areas elongate, attaining $\frac{3}{3}$ of hemelytral length, bearing about 10 rows of areolae at widest point; one transverse auxiliary vein crossing them apically, forming small triangular cell. Partially overlapping sutural areas rounded apically with about 13–14 rows of areolae at widest point.

Legs rather stout, protibiae 2.15 times longer than width across eyes; meso- and metatibiae about same length as protibiae. Tarsi relatively short. Rostral sulcus deep, about same breadth on meso- and metasternum. Meso- and metasternal laminae slightly arched, their convex side turned towards the sulcus. Pygophore, Figures 2 and 3; paramere, Figure 6.

Measurements (in mm): Length: head 0.81; pronotum 1.76; hemelytra: 4.70; an-



Figs. 1-6. Froeschnerocader denticollis. 1. Habitus. 2. Pygophore (profile). 3. Pygophore (from above). 4. Anterior half of body (profile). 5. Ventral side of body. 6. Paramere. Scales in mm.

tennal segments: (I) 0.28, (II) 0.25, (III) 3.10; (IV) 0.75; protibia 1.75; profemora 1.78; total length from tip of clypeus to apex of hemelytra 6.50. Breadth: head, width across eyes 0.85, front (at narrowest point) 0.25; pronotum 2.15; hemelytra 2.87.

Holotype. & EASTERN MALAYSIA: Sabah, northern Borneo, Mt. Kinabalu National Park, Poring Hot Springs, alt. 500 m, 21 III 1983, taken beating trees and shrubs around pools, C. Lienhard collector; preserved in the collection of the Musée d'Histoire Naturelle de Genève, Switzerland.

I am indebted to Bernd Hauser for sending his material, the main part of which is being considered in another paper.

LITERATURE CITED

- Drake, C. J. 1950. Concerning the Cantacaderinae of the World (Hemiptera: Tingidae). Arthropoda 1:153–166.
- Froeschner, R. C. 1968. Notes on the systematics and morphology of the lacebug subfamily Cantacaderinae (Hemiptera: Tingidae). Proc. Ent. Soc. Wash. 70:245–254.